

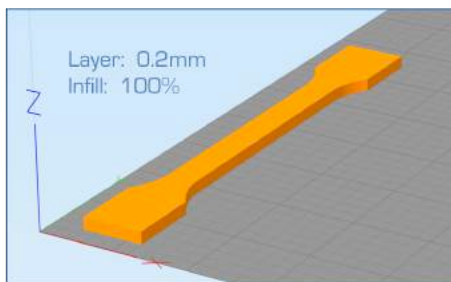


CarbonX™ Carbon Fiber Reinforced Nylon 3D Filament

CarbonX™ Carbon Fiber Reinforce Nylon is a high-performance carbon fiber reinforced 3D printing filament. This grade was formulated utilizing high-modulus carbon fiber and an advanced semi-aromatic polyamide copolymer – making it ideal for applications that require superior chemical resistance, thermal properties, mechanical properties, and dimensional stability compared to other FDM/FFF nylon materials. Suitable for use in practically all consumer-grade FDM/FFF printers that have a heated print bed. Made 3DXTECH® in the USA.

The reported technical data was generated from printed ISO test specimen. The general print parameters utilized are noted below.

- Desktop FDM/FFF Printer
- Nozzle: 0.4mm A2 hardened
- Layer height: 0.2mm
- Infill: 100%, +/- 45°
- Extrusion temp: 260°C
- Bed temp: 110°C
- Bed prep: ABS/Acetone Gel
- Print speed: 50 mm/sec



Disclaimer: The technical data contained on this data sheet is furnished without charge or obligation and accepted at the recipient's sole risk. This data should not be used to establish specifications limits or used alone as the basis of design. The data provided is not intended to substitute any testing that may be required to determine fitness for any specific use.

General Property	Unit	Standard	Typical Value
Density	g/cc	ISO 1183	1.14

Mechanical Property	Unit	Standard	Typical Value
Tensile Strength	MPa	ISO 527	63.9
Tensile Modulus	MPa	ISO 527	4387
Tensile Elongation, Break	%	ISO 527	4
Flexural Modulus	MPa	ISO 178	5650
Flexural Strength	MPa	ISO 178	78

Thermal Property	Unit	Standard	Typical Value
Glass Transition Temperature [Tg]	°C	DSC	105
Heat Distortion Temperature [HDT] @ 0.45MPa	°C	ISO 75	102

Electrical Property	Unit	Standard	Typical Value
Surface Resistivity	Ohm/sq	IEC 60093	>10 ¹⁰

Printing Recommendation	Typical Range
Extruder Temperature	240 - 270°C
Bed Temperature	100 - 110°C
Print Speed	50 - 70 mm/sec